

# Clemson IMPACTS

Clemson University Public Service Activities

Spring 2007



Grass-fed beef  
project expands at  
Edisto REC



Education  
Superintendent  
addresses rural  
school needs



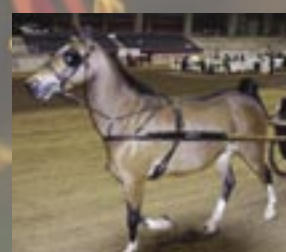
Scientists fight  
deadly coastal  
tree disease



Computer model  
tracks blue crab  
populations



Community  
Scholars discover  
statewide  
connections



Massey Classic  
Horse Show  
raises funds for  
charity



# Letter from the Vice President

In this issue you'll find how pasture-fed cattle produce more nutritious beef, how compiling a community's shared stories can strengthen family bonds, how global climate change is affecting South Carolina's tidal forests, how computer models are being used to protect the blue crab population, and how 4-H members are helping people in their hometowns and in the Caribbean.

Other items in this issue include:

Livestock reproductive research is improving both herd quality and quantity for the state's horse and cattle producers. The key is to increase ovulation in top quality livestock and use surrogate mothers to carry the offspring.

New public policies to address suburban sprawl are being implemented in Dorchester County as a result of a forum led by Clemson's Institute for Economic and Community Development. The forum brought together community leaders to identify issues and seek solutions. County council responded by establishing new guidelines for development.

A statewide emphasis on water quality and watershed management is being initiated through a partnership led by Clemson's Restoration Institute. The collaborative effort with the U.S. Environmental Protection Agency, the S.C. Department of Health and Environmental Control, and other groups will focus on promoting both economic and environmental sustainability.

A partnership with the S.C. Department of Juvenile Justice is landscaping a visitation garden at the Columbia facility and providing an alternative correction program at the W.W. Long 4-H Leadership Center in Aiken. Both projects are changing young lives for the better.

I hope you enjoy these and other reports on Clemson Public Service Activities across the state.

Sincerely,

John W. Kelly

Vice President for Public Service and Agriculture

*Knowledge for living. Knowledge for life.*

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PUBLIC SERVICE

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## Grass-fed beef project expands at Edisto REC

By Tom Lollis

The Pasture Based Beef Systems for Appalachia, a USDA research program, is helping cattlemen fill a growing demand for grass-finished beef.

For the next five years, Clemson researchers will develop a herd of 150 brood cows as part of the regional program. Based at the Edisto Research and Education Center in Blackville, the Clemson team is seeking to identify the right genes for forage-based herds.

"Forage-fed beef is leaner than grain-fed, contains more desirable fatty acids and antioxidants, and has twice the amount of a potent anticarcinogen called conjugated linoleic acid," said Steve Meadows, team leader and director of the Edisto center. Other team members are John Andrae, forage specialist, and Susan Duckett, livestock nutrition and meat quality scientist.

Bill Clapham of the USDA-ARS Appalachian Farming Systems Research Center in West Virginia, said, "I like what I see going on here at Clemson University. They've opened their minds to a new way of doing things. We're pumping the wrong kind of fat into our children and one of the biggest sources is (grain-fed) beef."

For more information: Steve Meadows, 803-284-3343, ext. 270; [smdws@clemson.edu](mailto:smdws@clemson.edu).



Photo by Tom Lollis

## Global food supply requires global security

By Peter Kent

Globalization sends U.S. crops and meat around the world and brings food products to our shores. Wherever it comes from, it's important that the food we eat is safe.

This spring, Clemson Livestock-Poultry Health director Tony Caver was asked to join a five-member team of USDA animal health officials who inspected livestock health in Uruguay.

The team toured sheep and cattle operations and animal health inspection laboratories, and met with livestock officials. They found a strong and genuine commitment from both government officials and livestock producers to maintain Uruguay's Foot and Mouth Disease-Free Status. A 2001 outbreak was financially devastating for the farmers.

"They see the value of vaccinating, tracking livestock, and using border patrol and surveillance to prevent or control another outbreak," said Caver, who serves as South Carolina's state veterinarian. Clemson's Livestock-Poultry Health programs protect the safety of the state's meats and the health of its domestic animals.

For information: <http://www.clemson.edu/lph/> or Tony Caver, 803-788-2260, [jcaver@clemson.edu](mailto:jcaver@clemson.edu).

## Cattlemen name Barnes 'Educator of the Year'

By Tom Lollis

The S.C. Cattlemen's Association named Marion Barnes "Educator of the Year" in their March meeting at the Edisto Research and Education Center in Blackville. Barnes is a senior Extension agent for Colleton, Hampton and Allendale counties. The award was presented by Mack Beaty, association president.

"Farmers in the counties he serves know he is willing to go the extra mile to solve a problem," said Thad Williams, association vice president. He cited Barnes for his studies with forage and pasture species, his efforts to promote conservation tillage, his work with wildlife habitats, his special programs to acquaint farmers with noxious weeds, and his educational meetings for beef producers.

Barnes was nominated by the Lowcountry Cattlemen's Association. He has been with the Clemson Extension Service since 1989 and lives on a 550-acre farm that his family has owned since 1856. He earned a B.S. degree in animal science from Clemson.

For more information: Marion Barnes, 843-549-2596, [jbrns@clemson.edu](mailto:jbrns@clemson.edu).



Photo by Tom Lollis





## Livestock reproduction research improves herds

By Peter Kent

To livestock producers, breeding is everything. The right mix of genes can lead to a blue-ribbon horse, a high producing dairy cow or a prime quality sow or steer. But one animal is not enough for a business. You have to figure out how to reproduce that animal and improve favorable genetic traits. That's where John Gibbons' research comes in.

Gibbons is a reproductive physiologist in Clemson's animal and veterinary sciences department. His specialty is improving the chances that top quality livestock will produce top quality offspring. He focuses on ovulation, with a goal to stimulate selected females to produce more eggs. The eggs are fertilized, and then the embryos are transferred to other females who carry them to term.

This research offers significant promise to livestock breeders for increasing the quantity and quality of their herds. Gibbons also hopes his work will lead to Clemson becoming a center for information on improving livestock reproduction and a source for reproductive services.

For more information: John Gibbons, 864-656-3138, [jgibbons@clemson.edu](mailto:jgibbons@clemson.edu).

## Grafted melon growing closer to commercial viability

By Tom Lollis

In the second year of research, seven gourd and squash rootstocks are being screened for disease resistance and ease of grafting to protect watermelons against fusarium wilt that can devastate melon crops. Grafting, widely used in Asia, offers an alternative to using the chemical pesticide methyl bromide.

Richard Hassell, horticulturist at Clemson's Coastal Research and Education Center in Charleston, is adapting the grafted production system for use in South Carolina. He is evaluating row spacing and looking for ways to reduce grafting costs. He hopes better quality fruit and more production per plant will offset the \$1 cost of each grafted transplant.

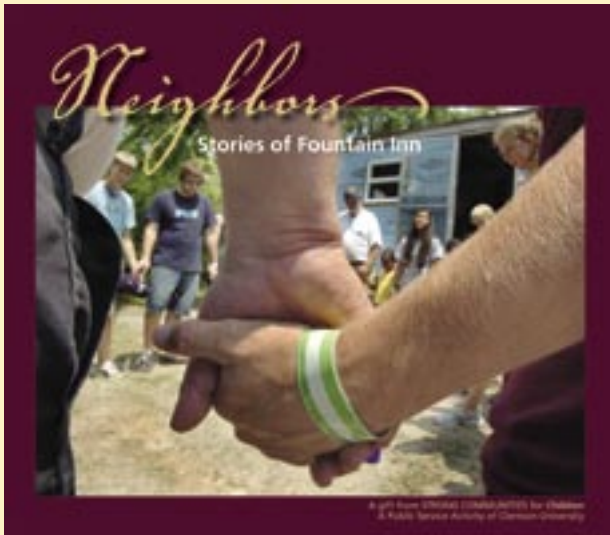
"We have some indication that grafted melons produce firmer fleshed-fruit, which interests the fresh cut industry," Hassell said.

The National Watermelon Association sent grafted plants for evaluation at research sites in Florida, Georgia, South Carolina and North Carolina. In South Carolina, plantings were at Clemson's Coastal center and the Edisto Research and Education Center in Blackville. Project support also came from watermelon associations in each state.

For information: Richard Hassell, 843-402-5394, [rhassell@clemson.edu](mailto:rhassell@clemson.edu).



Photo by Tom Lollis



## Neighbors: Stories of Fountain Inn leaves no families outside

By Kerry Coffey

More than 3,500 households in Fountain Inn are reading copies of *Neighbors: Stories of Fountain Inn* after a free book distribution March 30 – April 1, 2007 by volunteers with Strong

Communities for Children, an initiative of Clemson's Institute on Family and Neighborhood Life.

The stories range from reflections of a resident who has lived in the community for almost 90 years to the story of a local doctor and his wife who were prompted to start a mission house for families after an encounter with one homeless man. Chris Benson of Clemson's Strom Thurmond Institute edited the book.

"This book empowers the people of Fountain Inn to tell their own stories in their own words, and they see their hometown in a new light," said Clemson President James Barker. "They are now energized and working together to make their community even stronger."

"Leaving No Families Outside" is the Strong Communities theme for Child Abuse Prevention Month 2007. The initiative's goal is to encourage all members of the community to embrace families with young children.

For more information and a copy of the book: [www.clemson.edu/strongcommunities](http://www.clemson.edu/strongcommunities).



Photo courtesy of Leadership SC

## Education Superintendent addresses rural school needs

By Debbie Dalhouse

For their education focus, the members of this year's Leadership South Carolina class met with State Superintendent of Education Jim Rex to view the film, *Corridor of Shame: the neglect of South Carolina's rural schools* at Dillon High School in February.

"This meeting opened a dialog with Superintendent Rex so Leadership South Carolina participants can assist in improving education policies in the state," said Marc H. Johnson, chairman of Leadership South Carolina. Rex is a 1990 graduate of the program.

Participants visited elementary and high schools with Dillon County School Superintendent Ray Rogers and then met with university administrators to discuss higher education issues in Conway. Panel members were: Fred Carter, Francis Marion University; Doris Helms, Clemson University; Ron Ingle, Coastal Carolina University; Andrew Sorensen, University of South Carolina; and Neyle Wilson, Horry-Georgetown Technical College.

For more information: [www.leadshipsouthcarolina.org/](http://www.leadshipsouthcarolina.org/), or Helen Munnerlyn, 803-788-5700 ext. 44, [hmunner@clemson.edu](mailto:hmunner@clemson.edu).

## Growth plan develops from Deliberative Dialogue

By Debbie Dalhouse

A Dorchester County forum conducted last year by Clemson's Laboratory for Deliberative Dialogue has resulted in decisive actions by County Council to address suburban sprawl issues.

These include conducting a residential fiscal impact assessment through Clemson's Institute for Economic and Community Development and the Strom Thurmond Institute, adding a growth-management director, and formulating a development agreement that provides for new roads, parks, libraries, schools and public safety as more residents move to the coast. Now the Berkeley-Charleston-Dorchester Council of Governments to update the county's comprehensive plan and provide recommendations for growth planning.

"This comprehensive plan will be based on interviews with major stakeholders in Dorchester County," said Larry Hargett, Council Chairman. "On release in Fall 2007, it will be used for planning growth corridors and infrastructure to efficiently deliver County services."

Dorchester County is not alone in its tremendous growth. All South Carolina coastal counties are experiencing unprecedented increases in construction for homes, business and industry. The U.S. Census Bureau estimates that by the year 2012 some 50 percent of Americans will live within 50 miles of a coastline.

For more information: Bill Molnar, 803-788-5700, ext. 25, [wmolnar@clemson.edu](mailto:wmolnar@clemson.edu).



## Outdoor Education Trail officially dedicated

By Tom Lollis

The Outdoor Education Trail at Clemson's Pee Dee Research and Education Center in Florence was officially dedicated on April 14.

The trail runs along the scenic 150-acre Dargan's Pond and features a series of learning centers on the natural resources that can be found in agricultural, forest, lake, wetland and urban ecosystems.

The dedication featured wildlife displays, live animals, equipment demonstrations, children's activities and a nature walk led by Rudy Mancke, host of SC-ETV's *Nature Scene*. Support for the trail is growing among both environmental and agricultural groups, according to Jim Frederick, Clemson agronomist and trail coordinator.

"Kids can come out here and see crops growing, the nature trail with all the kiosks and learning centers and find out about wildlife and many other things," said Anne Neely, a Sierra Club member and math/science coordinator for Florence Public School District No. 1.

David Branham, director of commodity relations for the S.C. Farm Bureau, said, "This is a great program. It complements our Farm Bureau Ag in the Classroom Program."

For more information: Jim Frederick, 843-662-3526, ext. 228, [jfrdrck@clemson.edu](mailto:jfrdrck@clemson.edu).



Photo by Tom Lollis

## Honey bee disease still a mystery

By Diane Palmer

Honey bees are disappearing and researchers are scrambling to find a cause and a cure.



Clemson University Entomologist Mike Hood calls it "a fast-moving mystery," but a small problem so far in South Carolina.

Twenty-two states have been affected by colony collapse disorder. Some commercial beekeeping operations have lost up to 80 percent of their colonies. The disease targets adult worker bees which die outside the colony, leaving only a few adults inside. Worker bees are killed in a matter of weeks.

"Honey bees are our most beneficial insect and are responsible for pollinating approximately one third of our food in the United States," said Hood. "Some South Carolina fruits and vegetables that require honey bee pollination include apples, watermelon, cantaloupe, squash, cucumber, and many others. They are also important pollinators for many wildlife food plants."

South Carolina has about 2,000 beekeepers, with the bulk of them hobbyists whose bees make honey as well as pollinate crops in gardens, farms and orchards.

For more information: Mike Hood, 864-656-0346: [mhood@clemson.edu](mailto:mhood@clemson.edu).

## Global climate study shows effects of sea level rise

By Stephanie Beard

A team of Clemson scientists is measuring the effects of global climate change on freshwater tidal forested wetlands. The team, based at the Baruch Institute of Coastal Ecology and Forest Science in Georgetown, is led by hydrologist William Conner.

Storm surges from hurricanes can push large amounts of sea water inland and leave salt in the soil for weeks. This can kill some trees and freshwater plants, but cypress trees can usually withstand brief exposure to higher salt concentrations.

However, scientists are noticing more severe and long-lasting effects as sea levels rise due to global climate change. Even cypress trees cannot tolerate this long-term change in salinity. As salt water pushes further inland, forested wetland plants die and the area becomes a salt marsh.

Conner's research shows that some South Carolina coastal wetland forests are already changing to marsh as salt water intrudes into rivers. His study records salinity, water levels and tree growth in areas where salinity has increased, and compares those conditions to upstream forested wetlands that are not yet affected.

Data from this study can help land managers make more informed decisions and could lead to recommendations on how to restore forested wetlands and preserve the flood control and habitat benefits they provide.

For more information: William Conner, 843-546-1013 ext.227, [wconner@clemson.edu](mailto:wconner@clemson.edu).



Photo by William Conner



# Scientists fight deadly coastal tree disease

By Peter Kent

A foreign beetle and an unknown fungus are attacking coastal trees that provide food for birds, bears, and butterflies. Foresters are reporting a rising death toll of native red bay trees (*Persea borbonia*) along the coast of South Carolina, Georgia and Florida. The disease is spreading rapidly, according to scientists.

Clemson researchers and personnel at the S.C. Forestry Commission are collaborating with their colleagues in other states to try to solve this deadly problem.

"Currently, there is no cure or known control for the disease," said Steve Jeffers, Clemson plant pathologist. "Federal and state agencies are working together to monitor and slow the outbreak while we look for ways to deal with it."

Red bays are common from Virginia to Florida. Seeds from this native tree provide food for turkeys, quail, deer, songbirds, and bears. The plants also support three types of butterflies: palamedes, Schaus, and spicebush swallowtails. The palamedes butterfly is linked to the red bay because its eggs are laid on the leaves, and the emerging caterpillar eats the leaves.

For more information: Steve Jeffers, 844-656-7157, [sjffrs@clemson.edu](mailto:sjffrs@clemson.edu).



Photos by Steve Jeffers

## Clemson leads water quality programs for South Carolina

By Peter Kent

The U.S. Environmental Protection Agency (EPA) Region 4, in conjunction with the S.C. Department of Health and Environmental Control, is collaborating with Clemson to establish a Center for Watershed Excellence in South Carolina. The center will provide "one-stop" watershed planning and management support for communities throughout the state.

Planned services include research and education programs to foster development and implementation of cost-effective watershed management solutions. Clemson faculty, staff and students will work with community stakeholders to create site-based solutions that promote both economic and environmental sustainability. A formal announcement is planned for fall 2007 as details are finalized.

"We are excited to participate with the EPA in this collaborative effort," said John Kelly, Clemson vice president for public service and agriculture. "The center provides an efficient and effective approach to improving water quality, which will have a significant impact on the quality of life for our citizens and for economic development in South Carolina."

In addition, a statewide conference on water resources is being planned for fall 2008 to develop collaborative research among universities and agencies. Both initiatives are sponsored by Clemson's Restoration Institute.

For more information: <http://restoration.clemson.edu/ecology/> or Gene Eidson, 864-656-2619, [geidson@clemson.edu](mailto:geidson@clemson.edu).



Photo by Peter Kent

### Plants may grow spider silk for medical uses

Photo by Darryl Gludczynski



By Peter Kent

The National Institutes of Health is funding Clemson research seeking to produce synthetic spider silk that could be used to repair the human body.

William Marcotte, associate professor in Genetics and Biochemistry, is investigating ways to insert a spider's silk-making genes into plants. Unlike silkworms, spider farming is unrealistic because of low silk yields and territorial behavior.

Instead, Marcotte is seeking to produce the fiber-forming protein polymers by transferring recombinant silk genes into plants. He considers tobacco a good candidate for carrying the spider genes. That's good news for growers who could benefit from a new use for their crop.

The dragline silk of the golden orb weaver spider is the model for the study because it is a strong, elastic, waterproof, stretchable, biodegradable protein fiber. This makes it ideally suited for many applications, such as biodegradable sutures and cell scaffolds for tissue engineering. This research complements work by other Clemson scientists who are investigating ways to spin the silk protein into fiber for the textile industry.

For more information: William Marcotte, 864-656-0119, [marcotw@clemson.edu](mailto:marcotw@clemson.edu).

### Eat more fruits and veggies to improve health

By Peter Kent

More matters! More fruits and vegetables, that is. "Fruits & Veggies - More Matters!" is the new national campaign for healthy eating, which is recommended by the S.C. Department of Health and Environmental Control's Bureau of Community Health and Chronic Disease Prevention.

"It's vital that we eat more fruits and vegetables to improve our health and watch our waistlines," said Clemson dietitian Marge Condrasky. "This campaign is to help people find foods that are good to eat and good for you." As part of the campaign, she hosted a seven-week series of events in grocery stores to help families find simple ways to serve more fruits and veggies.

Customers could talk with a chef and a nutritionist, receive recipes, menus and tips, and sample the featured item of the week. Partners were DHEC, BI-LO and local chapters of the American Culinary Federation.

For more information: Marge Condrasky, 864-656-6554, [mcondra@clemson.edu](mailto:mcondra@clemson.edu).



Photo courtesy of SCDNR

### Computer model tracks blue crab populations

By Peter Kent

To protect the future of the blue crab population, scientists have developed a comprehensive computer model that analyzes how changes in crab behavior, water quality and fishing pressure affect the crustaceans.

Clemson ecologist Michael Childress and colleagues from the S.C. Department of Natural Resources and the Sea Grant Consortium created the model, known as the South Carolina Blue Crab Regional Abundance Biotic Simulation (SCBCRABS).

It follows the fate of individual blue crabs from the time they arrive in the marsh as juveniles until they migrate offshore as adults. The model is easy to use and can be viewed at [www.clemson.edu/SCBCRABS/](http://www.clemson.edu/SCBCRABS/).

Childress's research seeks to understand the importance of behavioral variability in the commercial success of blue crabs, lobsters and crayfish. These species are experiencing a rapid decline in the quality of their natural habitats. His goal is to help them to survive in our quickly changing environment until sustainable solutions can be found for the loss of critical habitat.

For more information: Michael Childress, 864-656-6198, [mchildr@clemson.edu](mailto:mchildr@clemson.edu).



## Community Scholars discover statewide connections

By Kathy Woodard

Students in Clemson's Community Scholars Alliance program learned of the University's statewide public service commitment during a two-day tour in March.

In Aiken, they worked on service projects with students at the Youth Development Center and began discussions to develop a service project in youth development. In Columbia, they met with faculty at the Institute for Economic and Community Development and with veterinarians at the Livestock-Poultry Health division.

"This experience was awesome!" said Crystal Brown, a Community Scholar from Cross, S.C. "I learned that Clemson is connected to every community in South Carolina. It motivated my desire to get involved with the summer camps offered by the Youth Learning Institute."

Community Scholars and the Civics and Service House Living and Learning Community are programs of Clemson's Service Alliance.

For more information: [www.clemson.edu/servicealliance/](http://www.clemson.edu/servicealliance/).

## Top high school students get inside view of Clemson

By Allison Caldwell

Nearly 200 top 9th and 10th graders from across the southeast have been selected to spend one of five weekends at the Youth Learning Institute in Pickens this spring. Their aim is to get an up-close look at Clemson, sharpen their academic skills, take on outdoor adventure challenges and have fun with new friends.

Clemson's Challenge for Academically Talented Students (C-CATS), seeks students who are among the top 10 percent of their classes and are expected to score 1300 or above on the SAT. This year the program received over 2,300 referrals from guidance counselors across South Carolina, North Carolina and Georgia.

"C-CATS gives us an opportunity to support the academic goals of the University and to give young people tools for a brighter future," said Brad Cuttino, site director at the Youth Learning Institute's Education Center.

For more information: Lori Guban, 864-878-1041, [lguban@clemson.edu](mailto:lguban@clemson.edu).



Photo by Clemson University Photo Services

## Volunteer service award goes to Beaufort County 4-H'er

By Diane Palmer

Beaufort County 4-H'er Joshua A. Barnett was honored with a President's Volunteer Service Award for his work with the 4-H program, the Community Bible Church and the Haiti Christian Mission.

The national award was presented by the Prudential Spirit of Community Awards program on behalf of the President's Council on Service and Civic Participation. It is sponsored by Prudential in partnership with the National Association of Secondary School Principals to recognize young people for outstanding community service.

Barnett, 17, is a senior at Community Bible Church Christian Academy and serves as president of the Cross Water 4-H Club.

For more information: Beverley Connelly, 843-470-3655; [bconnel@clemson.edu](mailto:bconnel@clemson.edu).

## York County 4-H'er gives back to her community

By Diane Palmer

The York County Crisis Pregnancy Center benefited because 4-H'er Laura Deas wanted to give back to her community.

Deas, 17, collected baby items from community organizations and donated them to the center as her 4-H citizenship and leadership project. She also painted two of the center's rooms and asked her 4-H sewing club to make blankets for the center.

A homeschooler, Deas has been a 4-H member for eight years. She said she has gained self confidence and become a teen leader because of her 4-H experiences. She is involved in many other 4-H projects, including teaching younger members.

For more information: 4-H Agent Margie Sippel, 803-684-9919, Ext 113, [msippel@clemson.edu](mailto:msippel@clemson.edu).



Photo courtesy of 4-H



Photo courtesy of Youth Learning Institute

# Clemson partnerships change lives

By Allison Caldwell

Seventeen-year-old Collin Smith is a bright, articulate young man with a promising future. But not long ago, he seemed headed down a different track. Problems at school led to problems at home, and in December 2005, Collin was in custody of the Department of Juvenile Justice (DJJ).



Photo courtesy of Youth Learning Institute

He was sent to the Youth Development Center at W.W. Long 4-H Leadership Center in Aiken, an alternative placement facility for nonviolent offenders and a partnership of Clemson's Youth Learning Institute and DJJ. Collin chose to make the best of it. "I stopped swearing and learned how to interact with people. The staff trusted me and called me a role model."

Collin completed his assigned 130 community service hours and then applied to the Youth Challenge Academy (YCA), also at Camp Long. A program of the SC National Guard, YCA allows high school dropouts to pursue their GED. Collin served another 300 community service hours and earned the highest score in YCA history on both the GED and the Armed Forces Vocational Aptitude Battery. He enlisted in the Army National Guard in November and plans to apply to The Citadel next spring.

His advice to others: "Make something happen. You can't wait for someone else to fix your problems."

For more information: [www.clemson.edu/yli](http://www.clemson.edu/yli)

# DJJ garden symbolizes serenity

By Stacey Atkinson

The newly landscaped visitation garden with a gazebo at the S.C. Department of Juvenile Justice stands as a symbol of peace, serenity and hope. The garden is part of the "Building Connections and Rebuilding Lives" initiative, which serves the state's youthful offenders in a rehabilitative environment.

It was constructed with help from 11 Clemson students who worked with DJJ juveniles and community volunteers. The service project complements the Transition Home for Girls, which is under construction at the Broad River Road complex.

"This project validates that the community is interested in and cares about the work that DJJ is doing to rehabilitate youthful offenders," said Jerry Adger, director of DJJ's Division of Rehabilitative Services. "The garden will help make a difference for our children."

Clemson staff members Bill Jordan from Sprouting Wings and Anna Garzon from AmeriCorps VISTA joined the students on their alternative fall break, sponsored by Clemson's Service Alliance program.

For more information: [www.clemson.edu/servicealliance/](http://www.clemson.edu/servicealliance/) or Kathy Woodard, 864-656-0205, [ckathy@clemson.edu](mailto:ckathy@clemson.edu).



Photo by Bill Jordan

# Summer camps offer learning and fun

By Pam Bryant

Independence, responsibility, teamwork and learning how to make the right decisions are all part of summer camp. Clemson's first residential summer camp was held in 1933 at 4-H Camp Long in Aiken.

Today, the Youth Learning Institute continues the tradition with Camp Sewee (marine science) in Awendaw; Camp Voyager (technology) in Pickens; 4-H Summer Camp in Summerton and Camp Wildlife (shooting sports and wildlife ecology) in Clinton.

Camp registration opens each year in January, with sessions beginning June 10. By April, nearly 800 campers had signed up, with some openings still available.

For more information or to register: <http://www.clemson.edu/yli/programs/summercamps.htm> or 864-878-1041.



Photo courtesy of Youth Learning Institute



## Massey Classic Horse Show raises funds for charity

By Diane Palmer

Approximately 500 horses from across the eastern United States converged at Clemson's T. Ed Garrison Livestock Arena in April for the 74th annual J.D. Massey Classic Horse Show.

The program showcased professional, amateur and junior riders in the five-gaited, three-gaited and fine harness championships, as well as hackney pony and roadster horse competitions.

Each year, the non-profit show raises funds to benefit local charities. Last year, the show funded three \$1,000 scholarships for the Veterinary Technology Program at Tri-County Technical College. Clemson-Calhoun Rotary received approximately \$3,000 and the Clemson Collegiate Horseman's Association received \$1,000.

For more information: Charles Williams at (864) 646-277, [cwllms@clemson.edu](mailto:cwllms@clemson.edu) or <http://www.clemson.edu/garrison/>.



Photo by Diane Palmer

## Sculpture provides beauty and stormwater management

By Diane Palmer

The latest nature-based sculpture in the S.C. Botanical Garden helped solve a stormwater management problem while creating a beautiful artistic space using natural materials.

"The Garden now has 11 remaining nature-based sculptures; but this is the first one created to address a specific need," said Todd Steadman, assistant director for the Botanical Garden. "We wanted to redirect stormwater while providing a palette for two talented artists."

The sculpture, titled "East Meets West", was created by a pair of artists in a cultural exchange funded by the National Endowment for the Arts.

Aspiring artist Yvette Dede of Charleston collaborated with established artist Niroko Inoue of Nara, Japan. Clemson students helped create the work from bamboo and stones found in the Garden.

For more information: <http://www.clemson.edu/scbg/sculptures/>



Photo by Diane Palmer



Photo courtesy of Youth Learning Institute

## Eat. Sleep. Row.

By Pam Bryant

Great weather, good food, comfortable lodging, and miles of rowable water: it's the perfect combination for school rowing teams who come to the R.M. Cooper Leadership Center in Summerton.

"Eat. Sleep. Row." is the motto for *Crew*, the spring training program operated by Clemson's Youth Learning Institute. Rowers from northern states and Canada come to escape frozen lakes and frigid temperatures. This marks *Crew*'s largest season, with 38 high school and college teams and more than 1,500 rowers.

Jay Printzlau, coach for the Concord High School Rowing Team in New Hampshire, said, "I've come back to Cooper for four years because everything we need is right here. The staff at Cooper is among the best and it's a self-contained site that's safe for our students. I plan to keep coming back."

For more information: [www.clemson.edu/yli/crew/](http://www.clemson.edu/yli/crew/) or Beau Mongold, 803-460-3233, [gmongol@clemson.edu](mailto:gmongol@clemson.edu).



## Water Forum explores issues related to the next “war between the states”

By Peter Kent

The next “war between the states” may be over water. Georgia needs water for metro Atlanta. North Carolina needs water for Charlotte. South Carolina is in the middle. What must be done to ensure that we have the water we need?

To answer this question, Clemson University’s Restoration Institute sponsored a Water Forum in April to provide an update on South Carolina water policy and funding opportunities for water issues research and outreach.

The forum attracted some 120 faculty, staff and graduate students who heard presentations from state and federal water agency representatives in a panel discussion on water issues facing South Carolina and Georgia. Keynote speaker was Dean Moss, a member of the Governor’s Water Law Review Team, who spoke on “Savannah River Issues, the View from the Sea Buoy.”

“The purpose of the forum is to establish interdisciplinary teams to address South Carolina’s critical water issues through research, education, and public service,” said Gene Eidson, forum organizer and restoration ecology director for the Institute.

For more information: <http://restoration.clemson.edu/ecology/> or Gene Eidson, 864-656-2619, [geidson@clemson.edu](mailto:geidson@clemson.edu).

Photo by Rebecca Delhouse

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For more information on water issues  
visit the Clemson Restoration Institute  
[www.restoration.clemson.edu/ecology/](http://www.restoration.clemson.edu/ecology/)

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